



Attorney Docket No. 920276/LH

**THE UNITED STATES PATENT
AND TRADEMARK OFFICE**

Applicant(s): Minoru USUI et al

Serial No. : 07/866,744

Filed : April 10, 1992

For : IMAGE DISPLAY
APPARATUS

Art Unit : 2615

Examiner : ~~J. Brier~~ J. Brier

INFORMATION DISCLOSURE STATEMENT

Hon. Commissioner of Patents
and Trademarks

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Submitted herewith are copies of Japanese Utility Model
Application Nos. 2-113476 and 2-113477 (and English translations
thereof) and a form PTO-1449 listing the particulars thereof. It
is respectfully requested that the Examiner consider the Japanese
publications submitted herewith with their English language
translations, and return an initialled copy of the attached form
PTO-1449 to confirm that the publications have been considered
and made of record.

No fee is required for the present Information Disclosure
Statement since it is being filed prior to a first Office Action
on the merits. See 37 CFR 1.97(b)(3).

Explanation of Relevance

The apparatuses of Japanese 2-113476 and 2-113477 cause a voltage which is applied to a liquid crystal to differ from a voltage corresponding to original image data, so as to improve a response speed in the liquid crystal. However, the voltage applied to the liquid crystal is either a maximum value or a minimum value of the voltage which can be applied to the liquid crystal. Thus, neither of these Japanese references change a difference between a voltage applied to the liquid crystal and a voltage indicated by the original image data in accordance with the image data difference between the present frame and the previous frame, as occurs in the present invention.

Cross Reference To related Applications

Applicants hereby inform the Examiner of the following two U.S. applications which are related to the present application:

1. U.S. Serial No. 07/441,879 filed November 27, 1989; and
2. U.S. Serial No. 07/702,777 filed April 17, 1991.


U.S. Serial No. 07/441,879 discloses a system which contrives a wave shape of a voltage by which a liquid crystal is driven. In the present invention, the voltage which is applied to the liquid crystal during one selection period has a

rectangular shape, i.e. it is a constant. However, in Serial No. 07/441,879, this voltage has a step-wise shape, i.e. a plurality of voltage levels. In this respect, Serial No. 07/441,879 clearly differs from the present invention.

U.S. Serial No. 07/702,777 discloses conversion of data representing the number of bits constituting video data. However, Serial No. 07/702,777 does not disclose that current video data and previous video data are compared with each other, so as to adjust the voltage applied to signal electrodes.

It is respectfully requested that the Examiner fully consider this Information Disclosure Statement since it is being filed before issuance of a first Office Action on the merits. It is further respectfully requested that the Examiner return an initialled copy of the attached form PTO-1449 to confirm that the publications listed therein have been considered and made of record.

Respectfully submitted,


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Enc. - form PTO-1449 and references cited therein.